

REMARKS

I. Status of Claims

Claims 1-5 and 9-30 are pending in the application.

Claims 1 and 14 are amended to recite that the content of the dispersion stabilizer is from 6 % to 20.7% by weight, wherein the dispersion stabilizer comprises (i) a chelate at a content in a range of 3.3 to 30 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles, (ii) an organic acid at a content in a range of 6.0 to 20.3 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles, and (iii) a phosphate ester-based compound at a content in a range of 6.7 to 16.7 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles, the content of the tin-doped indium oxide fine particles is from 10% to 60% by weight, the content of the alcohol is from 4 to 13.8% by weight, and the content of the plasticizer is from 10% to 80% by weight.

Claim 27 is amended to recite that the content of the tin-doped indium oxide fine particles is from 10% to 60% by weight, and in the dispersion, the content of the organic acid is in a range of 2% to 8% by weight, the content of the phosphate ester-based compound is in a range of 1% to 6% by weight, the content of the chelate is in a range of 1% to 10.3% by weight, the content of the alcohol is from 4% to 13.8% by weight, and the content of the plasticizer is from 10% to 80% by weight, respectively.

Support for the claim amendments can be found, for example, at original Claims 1, 14, and 27, and working Examples 1a to 1c, 2 to 4, and 10 to 12 of the specification.

No new matter is added, and a Request for Continued Examination (RCE) is filed concurrently herewith. Accordingly, Applicants respectfully request entry and consideration of the Amendment.

II. Statement of Substance of Interview

During an Examiner Interview conducted on June 21, 2011, proposed amendments to Claim 1 were discussed. The Examiner requested inclusion of a recitation of the amount of plasticizer, with sufficient support in the specification.

III. Response to Claim Rejection Under 35 U.S.C. § 112, first paragraph

Claims 1-5 and 9-30 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

Applicants respectfully traverse, at least for the following reason.

The dispersion of tin-doped indium oxide fine particles of present Claim 1 has the following feature: (a) the dispersion stabilizer comprises (i) a chelate at a content in a range of 3.3 to 30 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles, (ii) an organic acid at a content in a range of 6.0 to 20.3 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles, and (iii) a phosphate ester-based compound at a content in a range of 6.7 to 16.7 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles.

The feature (a) is based on working Examples 1a to 1c, 2 to 4, and 10 to 12 of the specification. Reference Table 1 below (based on Table 1 of the specification) shows the content (g), the content in the dispersion (% by weight), and the relative content (parts by weight) relative to 100 parts by weight of the tin-doped indium oxide fine particles (ITO particles), of each component in the working Examples.

Reference Table 1

No.	ITO Particles	Plasticizer	Alcohol	Phosphate ester-based compound			Organic acid			Chelate			Relative content of total of chelate, organic acid, and phosphate ester-based compound (parts by weight)#
	Content (g)	Content (g)	Content (g)	Content (g)	Relative content (parts by weight)#	Content in dispersion (% by weight)	Content (g)	Relative content (parts by weight)#	Content in dispersion (% by weight)	Content (g)	Relative content (parts by weight)#	Content in dispersion (% by weight)	
1a	10	80	4	1	10.0	1.0	2	20.0	2.0	3	30.0	3.0	60.0
1b	34.5	31	13.8	3.4	9.9	3.4	7	20.3	7.0	10.3	29.9	10.3	60.0
1c	25	50	10	2.5	10.0	2.5	5	20.0	5.0	7.5	30.0	7.5	60.0
2	30	55	7	5	16.7	5.0	2	6.7	2.0	1	3.3	1.0	26.7
3	50	30	5	6	12.0	6.0	3	6.0	3.0	6	12.0	6.0	30.0
4	60	10	10	4	6.7	4.0	8	13.3	8.0	8	13.3	8.0	33.3
10	10	80	4	1	10.0	1.0	2	20.0	2.0	3	30.0	3.0	60.0
11	10	80	4	1	10.0	1.0	2	20.0	2.0	3	30.0	3.0	60.0
12	10	80	4	1	10.0	1.0	2	20.0	2.0	3	30.0	3.0	60.0

The relative contents are values relative to 100 parts by weight of ITO particles

A person of ordinary skill in the art can calculate the relative content (parts by weight) and the content in the dispersion (% by weight) from the contents of the components. As is clear from the data in Reference Table 1 above, the above-identified feature (a) of Claim 1 is based on the contents of the components in working Examples 1a to 1c, 2 to 4, and 10 to 12. The sum of the lower limits of the ranges of the relative contents of three components of the dispersion stabilizer is 16 parts by weight. The sum of the higher limits of the ranges of the relative contents of three components of the dispersion stabilizer is 67 parts by weight. Therefore, the sum of the relative contents of three components of the dispersion stabilizer is from 16 to 67 parts by weight.

With regard to Examiner's case (1) in which 20.7% by weight of the dispersion stabilizer and 10 % by weight of the ITO particles are included, the relative content of the dispersion stabilizer would be 207 parts by weight relative to 100 parts by weight of the ITO particles, which is out of the range of the sum of the relative contents of three components of the dispersion stabilizer in feature (a) of present Claim 1. Similarly, with regard to Examiner's case

(2) in which 6% by weight of the dispersion stabilizer and 60 % by weight of the ITO particles are included, the relative content of the dispersion stabilizer would be 10 parts by weight relative to 100 parts by weight of the ITO particles, which is also out of the range of the sum of the relative contents of three components of the dispersion stabilizer in feature (a) of present Claim 1. Accordingly, feature (a) of Claim 1 does not include the Examiner's cases (1) and (2).

The dispersion of tin-doped indium oxide fine particles of claim 27 has the following features: (b) in the dispersion, content of the organic acid is in a range of 2% to 8% by weight, the content of the phosphate ester-based compound is in a range of 1% to 6% by weight, the content of the chelate is in a range of 1% to 10.3% by weight, the content of the alcohol is from 4% to 13.8% by weight, and the content of the plasticizer is from 10% to 80% by weight, respectively, and (c) the total content of the chelate, the organic acid, and phosphate ester-based compound is in a range of 26.7 to 60 parts by weight relative to 100 parts by weight of the tin-doped indium oxide fine particles.

As is clear from the data in Reference Table 1 above, the features (b) and (c) are based on the contents of the components in working Examples 1a to 1c, 2 to 4, and 10 to 12. As described above, with regard to the Examiner's case (1), the relative content of the dispersion stabilizer would be 207 parts by weight relative to 100 parts by weight of the ITO particles, while with regard to the Examiner's case (2), the relative content of the dispersion stabilizer would be 10 parts by weight relative to 100 parts by weight of the ITO particles. Accordingly, feature (c) does not include the Examiner's cases (1) and (2).

In view of the above, Applicants respectfully request reconsideration and withdrawal of the § 112, first paragraph rejection of Claims 1 and 27, and dependent claims thereof.

IV. Response to Claim Rejection Under 35 U.S.C. § 112, second paragraph

Claims 1-5 and 9-30 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

Applicants respectfully traverse, at least for the following reasons.

In Claim 1, the feature that the Examiner pointed out is amended to recite that “the dispersion stabilizer comprises (i) a chelate at a content in a range of 3.3 to 30 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles, (ii) an organic acid at a content in a range of 6.0 to 20.3 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles, and (iii) a phosphate ester-based compound at a content in a range of 6.7 to 16.7 parts by weight per 100 parts by weight of the tin-doped indium oxide fine particles.” Thereby, the relative content of each component of the dispersion stabilizer relative to 100 parts by weight of the ITO particles is clearly defined. In addition, the relative contents are based on the working Examples of the specification, as shown in Reference Table 1 above.

Similarly, in Claim 27, the content (% by weight) of the various components of the dispersion is further defined. In addition, the relative contents defined in the feature (c) are based on the working Examples as shown in Reference Table 1 above.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the § 112, second paragraph rejection of Claims 1 and 27, and dependent claims thereof.

V. Response to Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-5 and 9-30 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kondo (U. S. Patent No. 6,329,061 B2) in view of Kobata et al. (U. S. Patent No. 6,673,456 B1) and Mont et al. (U. S. Patent No. 4,027,069).

Applicants respectfully traverse, at least for the following reason.

The dispersions of tin-doped indium oxide fine particles of Claims 1 and 27 is further defined to include the following feature: (d) the content of the alcohol is from 4 to 13.8% by weight.

When both of the dispersion stabilizer containing chelate, organic acid and phosphate ester-based compound and the organic solvent containing at least one alcohol as a main component are included and the feature (d) are fulfilled, the ITO fine particles are dispersed uniformly without becoming agglomerated particles. Thereby, solvent shock can be prevented. As a result, as shown in the working Examples of the specification and the Rule 132 Declaration filed May 26, 2009, significant effects can be realized such that excellent values can be obtained in all of the visible light transmittance (Tv), the solar radiation transmittance (Ts), the haze value, the reflection yellow index (reflection YI), and the reflection measured value.

In contrast, among Kobata, Kondo, and Mont, only Kondo discloses the use of alcohol; however, in Kondo, there is no description with regard to the content of alcohol and its effects.

Therefore, the dispersions of tin-doped indium oxide fine particles of Claims 1 and 27 include features which are not disclosed in Kobata, Kondo, and Mont, and which result in the above-discussed significant effects. Accordingly, the dispersions of tin-doped indium oxide fine particles of Claims 1 and 27 are patentable over Kobata, Kondo, and Mont.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of Claims 1 and 27, and dependent claims thereof.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
Appln. No.: 10/550,259

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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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